

1. How LDR sensor is useful in Health Monitoring?

Answer: 1

2. Name some applications where accelerometer and Gyroscope are used together?  
Explain how and why?

Answer: 2

3. Explain those scenarios where we need to use PIR sensor and ultrasonic sensors together?

Answer: 3

4. Which type of motors are used in Drones. Explain.

Answer: 4

Basically, there are two types of motors are used in drone:

Brushless Motors:

Due to absence of brushes, wear and tear is very less, thus making them more reliable and durable.

High RPM are possible without much heating.

More power to weight ratio.

They respond more quickly to variations in speed than brushed motors, making them ideal for drones, since continuous variations in speed are required for maneuver of drones.

Less heating and noise. Thus, more efficient.

Coreless Motors:

Coreless motors are brushed motors, with only difference that the armature is not made of steel pole with winding on it. Instead the winding itself acts as armature.

Thus, they have negligible rotational inertia, thus providing more agility in terms of speed control, which is needed for drones.

Also, steel pole being omitted, coreless motors are extremely lightweight, have good heat dissipation and can achieve higher RPM.

Controllers for coreless motors are much cheaper and easier to use than brushless motors (same as common brushed motors). The motor itself is costly though.